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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,593	09/25/2003	Kazuo Shiota	2091-0291P	1320

2292 7590 07/17/2007
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EXAMINER	
WANG, JIN CHENG	
ART UNIT	**PAPER NUMBER**
2628	

NOTIFICATION DATE	DELIVERY MODE
07/17/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/669,593	SHIOTA ET AL.	
	Examiner	Art Unit	
	Jin-Cheng Wang	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 June 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant's submission filed on 6/11/2007 has been entered. Claims 1, 6, 11 and 16 have been amended. The claims 1-25 are pending in the application.

Response to Arguments

Applicant's arguments filed June 11, 2007 have been fully considered but are moot in view of the new ground(s) of rejection of the base claim 1 based on Kahn et al. US 2004/0004663 A1 and Asami U.S. Patent No. 6,882,350 set forth in the present Office Action.

Kahn teaches a method for generating an album based on album data including at least one image data set, which has been photographed during a trip and which has location data representing a photography location attached thereto, comprising the steps of:

Loading the image data into a personal computer (*See Paragraph 0044-0045 wherein the image data is taken by the digital camera 100 and is loaded to the local host device such as cell phone, personal digital assistant, computer or the like and the personal digital assistant or the computer meets the claim limitation of "a personal computer"*);

Forwarding image data from a user terminal of said personal computer to a generation support server (*e.g., Kahn teaches forwarding/uploading user's photos from the local host device to the image management server of Fig. 4; see Paragraph 0089 and 0097-0098)*, a user at the user terminal being identified by a user ID (*user's GPS location, location ID in paragraph 0094 and 0097 and user's identity ID of paragraph 0098*), where a predetermined reference position corresponds to said user ID (*e.g., Paragraph 0051 wherein the location information of where the*

user is currently located, the most recently captured images for organizing a plurality of photos. The location information may also be a centroid of a given geographic location of interest of Kahn meets the claim limitation of "a predetermined reference position" wherein the centroid is associated with the user's location ID and/or the user's ID; see paragraph 0093); and,

The generation support server performing the steps of:

Calculating said distance between the photography location of the image data set and a predetermined reference position, based on the location data (*e.g., Kahn teaches calculating the distance by determining whether the user's GPS location lies within a given geographic location of interest to determine the distance between the user's GPS location and the centroid for a given geographic location as performed within an SQL stored procedure; see Paragraph 0093*);

Judging whether the distance is over a predetermined threshold value (*e.g., the radius of a given geographic location as taught in Kahn meets the claim limitation of "a predetermined threshold value"; see Paragraph 0093-0094*; a list of fulfillers within a given distance as retrieved from the database in the image manager are returned to the local applet and displayed to the user as sorted by least distance to the user; see Paragraph 0098-0100);

Classifying the image data set according to the result of judgment (*"albums" based on location of Paragraph 0098-0100*); and

Generating the album data according to the result of classification (*"albums" based on location of Paragraph 0098-0100*).

Kahn is silent to the claim limitation of displaying together, on a display screen, both map data indicating a travel route and thumbnail images in a chronological order.

However, Asami discloses in Figs. 10-12 and 15-19 displaying together on a display screen both map data indicating a travel route and thumbnail images in a chronological order (See also Asami column 20, lines 34-62, e.g., the map data indicating the sightseeing course of the tour or the map data indicating the route connecting the thumbnail icons of photos).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to have incorporated Asami into Kahn's method and apparatus for generating an album because Kahn's photos are location dependent in a trip and are ordered in chronological order in a trip and Kahn's photos thus can be displayed according to the teaching of Asami (Figs. 15-19 and 10-12 of Asami) as Asami's photos are also locations dependent and are ordered chronologically for a trip.

One of the ordinary skill in the art would have been motivated to incorporate Asami to display the photo icons along the travel route (See also Asami column 20, lines 34-62, e.g., the map data indicating the sightseeing course of the tour or the map data indicating the route connecting the thumbnail icons of photos; See also Asami Figs. 10-12 and 15-19).

Applicant's arguments filed June 11, 2007 have been fully considered but are moot in view of the new ground(s) of rejection of the base claim 1 also based on Loui et al. U.S. Patent No. 6,636,648 (hereinafter Loui), in view of Wilcock et al. U.S. Patent No. 6,741,864 (hereinafter Wilcock) and Asami U.S. Patent No. 6,882,350 (hereinafter Asami).

Re claims 1, 6, 11, 16 and 25, Loui discloses a method for generating an album based on album data including at least one image data set, which has been photographed using a digital

camera during a trip and which has location data representing a photography location attached thereto, comprising the steps of:

Calculating a distance between the photography location of the image data set and a predetermined reference position, based on the location data (*e.g., Loui teaches in column 9-11 adding annotations for pictures and associating metadata to the pictures. Loui teaches an albuming algorithm that arranges the picture according to an event or a sub-event wherein the event or sub-event are defined by the metadata including metadata tags and GPS information to determine location and subject depth information. The information defines the context surrounding a picture capturing event allowing the user to select the set of pictures in the database using an arbitrary query based on the stored metadata and the selected set of pictures is filtered by omitting those pictures whose image quality metric is below some threshold and the event segmentation stage determines event and sub-event boundaries to determine final set of pictures for each event and sub-event. Loui classified the pictures using the metadata having the location information and the pictures are classified in accordance to the predetermined way of dealing with the actual boundary condition of events and sub-events. This classification algorithm according to the event and sub-event boundary involves a predetermined threshold value for judging the distance between the photo location contained in the metadata and a reference position associated with an event or sub-event such as the event and sub-event boundaries*);

Judging whether the distance is over a predetermined threshold value (*e.g., Loui teaches in column 8-11 adding annotations for pictures and associating metadata to the pictures. Loui teaches an albuming algorithm that arranges the picture according to an event or a sub-event*

wherein the event or sub-event are defined by the metadata including metadata tags and GPS information to determine location and subject depth information. The information defines the context surrounding a picture capturing event allowing the user to select the set of pictures in the database using an arbitrary query based on the stored metadata and the selected set of pictures is filtered by omitting those pictures whose image quality metric is below some threshold and the event segmentation stage determines event and sub-event boundaries to determine final set of pictures for each event and sub-event. Loui classified the pictures using the metadata having the location information and the pictures are classified in accordance to the predetermined way of dealing with the actual boundary condition of events and sub-events. This classification algorithm according to the event and sub-event boundary involves a predetermined threshold value for judging the distance between the photo location contained in the metadata and a reference position associated with an event or sub-event such as the event and sub-event boundaries);

Classifying the image data set according to the result of judgment (*e.g., Loui teaches in column 8-11 adding annotations for pictures and associating metadata to the pictures. Loui teaches an albuming algorithm that arranges the picture according to an event or a sub-event wherein the event or sub-event are defined by the metadata including metadata tags and GPS information to determine location and subject depth information. The information defines the context surrounding a picture capturing event allowing the user to select the set of pictures in the database using an arbitrary query based on the stored metadata and the selected set of pictures is filtered by omitting those pictures whose image quality metric is below some threshold and the event segmentation stage determines event and sub-event boundaries to determine final set of*

pictures for each event and sub-event. Loui classified the pictures using the metadata having the location information and the pictures are classified in accordance to the predetermined way of dealing with the actual boundary condition of events and sub-events. This classification algorithm according to the event and sub-event boundary involves a predetermined threshold value for judging the distance between the photo location contained in the metadata and a reference position associated with an event or sub-event such as the event and sub-event boundaries, e.g., the distance is either zero or larger than a threshold value so that the photo is judged to be either within or outside the event and sub-event boundaries);

Generating the album data according to the result of classification (*e.g., Loui teaches in column 7-11 the page layout module presents to the user an automatically laid out album organized by event with the algorithm choosing the albuming parameters by default or specified by the user*).

However, it remains to be determined whether Loui's query using the query metric meets the claim limitation of calculating a distance between the photography location of the image data set and a predetermined reference position, based on the location data. It can be seen from Loui that the query for the images to be shown in a photo album requires a predetermined event such as the predetermined photography location for the query and the images found after query meets the criteria set forth in the query metric in which the distance between the queried image and the predetermined photography location is within the event boundary.

This is manifested as follows. Loui teaches in column 9-11 adding annotations for pictures and associating metadata to the pictures. Loui teaches an albuming algorithm that arranges the picture according to an event or a sub-event wherein the event or sub-event are

defined by the metadata including metadata tags and GPS information to determine location and subject depth information. The information defines the context surrounding a picture capturing event allowing the user to select the set of pictures in the database using an arbitrary query based on the stored metadata and the selected set of pictures is filtered by omitting those pictures whose image quality metric is below some threshold and the event segmentation stage determines event and sub-event boundaries to determine final set of pictures for each event and sub-event. Loui classified the pictures using the metadata having the location information and the pictures are classified in accordance to the predetermined way of dealing with the actual boundary condition of events and sub-events. This classification algorithm according to the event and sub-event boundary involves a predetermined threshold value for judging the distance between the photo location contained in the metadata and a reference position associated with an event or sub-event such as the event and sub-event boundaries.

It remains to show whether that Loui implicitly teaches judging whether the distance is over a predetermined threshold value. Loui that the query for the images to be shown in a photo album requires a predetermined event such as the predetermined photography location for the query and the images found after query meets the criteria set forth in the query metric in which the distance between the queried image and the predetermined photography location is within the event boundary. The event boundary for an event occurs within a region of interest, for example, a park or a city requires the calculation of the distance between the locations for the images being queried and the query location of interest and the distance should be less than a threshold such as the zero threshold for exact query or within a predetermined threshold for approximate query in a query language.

Nevertheless, Wilcock explicitly discloses using threshold for classifying the pictures within a location of interest and therefore Wilcok discloses the claim limitation of judging whether the distance is over a predetermined threshold value (See Wilcok column 7, lines 28-51).

Moreover, Wilcock discloses the claim limitation of calculating a distance between the photography location of the image data set and a predetermined reference position, based on the location data (column 10, lines 35-65).

Therefore, taking the combined teachings of Loui and Wilcock, one of the ordinary skill in the art would have incorporated Wilcock's thresholding into Loui's method because these references deal with the image queries based on the location of interest using a criteria set forth in the query wherein Wilcock specifically uses a threshold number to classify the groups of pictures. One of the ordinary skill in the art would have been motivated to use the thresholding to specifically classify the pictures when they fall into a number of categories of events (See Wilcok column 7, lines 28-51).

It remains to show whether that Loui and Wilcok implicitly teach the claim limitation of "loading the image data into a personal computer" and "forwarding image data from a user terminal of said personal computer to a generation support server, a user at the user terminal being identified by a user ID, where a predetermined reference position corresponds to said user ID."

However, Wilcok further discloses the claim limitation of "loading the image data into a personal computer" and "forwarding image data from a user terminal of said personal computer

to a generation support server, a user at the user terminal being identified by a user ID, where a predetermined reference position corresponds to said user ID".

Wilcok discloses loading the image data into a personal computer (column 10, lines 35-65) and forwarding image data from camera/personal digital assistant (See column 10, lines 35-65) to PC 5 and/or database 7-9 on the PC or external, a user at the user terminal (*comprising of the mobile device in combination of the camera and the location server for providing the location data for the photos taken; see column 10, lines 55-65*) being identified by camera ID and a user ID including the location data; see column 3, lines 45-65 and column 10, lines 10-30; where a predetermined reference position (*the location data of the last taken photo; see column 9, lines 55-67 and column 10, lines 1-7 and column 10, lines 40-65 wherein the cited reference teaches the location data of an individual photo is associated with the last taken photo for correlations with the photos being taken with the predetermined reference position can be position-in-sequence of photographs*) such as the reference location data is provided for correlation with the taken photos.

The reference location/position is provided by the location-based services corresponding to the user's location data. The photo location data is related to the camera and/or the personal digital assistant's location when a user takes a photo and the user operates a button of the camera and/or personal digital assistant to cause the camera or the personal digital assistant to trigger a determination of its location; see column 11, lines 10-67 and the location data can be provided by a digital camera equipped with GPS wherein a predetermined location reference such as the GPS location is associated with the camera or the personal digital assistant identified by the user ID.

One of the ordinary skill in the art would have been motivated to use the forwarding means so that the photos can be stored for retrieval on the basis of their GPS locations and album collections are made by matching the location data associated with photo image data in the album program (See Wilcok column 13, lines 20-67 and column 14, lines 1-57).

Loui and Wilcok are silent to the claim limitation of displaying together, on a display screen, both map data indicating a travel route and thumbnail images in a chronological order.

However, Asami discloses in Figs. 10-12 and 15-19 displaying together on a display screen both map data indicating a travel route and thumbnail images in a chronological order (See also Asami column 20, lines 34-62, e.g., the map data indicating the sightseeing course of the tour or the map data indicating the route connecting the thumbnail icons of photos).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to have incorporated Asami into Loui and Wilcok's method and apparatus for generating an album because Loui and Wilcok's photos are location dependent in a trip and are ordered in chronological order in a trip and Loui and Wilcok's photos thus can be displayed according to the teaching of Asami (Figs. 15-19 and 10-12 of Asami) as Asami's photos are also locations dependent and are ordered chronologically for a trip. Wilcok teaches in Figs. 6-7 that the thumbnails are displayed on the map having a plurality of routes that a user can travel along.

One of the ordinary skill in the art would have been motivated to incorporate Asami to display the photo icons along the travel route (See also Asami column 20, lines 34-62, e.g., the map data indicating the sightseeing course of the tour or the map data indicating the route connecting the thumbnail icons of photos; See also Asami Figs. 10-12 and 15-19, Wilcok Figs.

6-7 wherein the thumbnails are displayed on the map having a plurality of routes that a user can travel along).

Re claims 3-5, 8, 10, 13, 15, 18 and 20, Loui teaches in column 8-11 adding annotations for pictures and associating metadata to the pictures. Loui teaches an albuming algorithm that arranges the picture according to an event or a sub-event wherein the event or sub-event are defined by the metadata including metadata tags and GPS information to determine location and subject depth information. The information defines the context surrounding a picture capturing event allowing the user to select the set of pictures in the database using an arbitrary query based on the stored metadata and the selected set of pictures is filtered by omitting those pictures whose image quality metric is below some threshold and the event segmentation stage determines event and sub-event boundaries to determine final set of pictures for each event and sub-event. Loui classified the pictures using the metadata having the location information and the pictures are classified in accordance to the predetermined way of dealing with the actual boundary condition of events and sub-events. This classification algorithm according to the event and sub-event boundary involves a predetermined threshold value for judging the distance between the photo location contained in the metadata and a reference position associated with an event or sub-event such as the event and sub-event boundaries, e.g., the distance is either zero or larger than a threshold value so that the photo is judged to be either within or outside the event and sub-event boundaries. Loui further teaches in column 7-11 the page layout module presents to the user an automatically laid out album organized by event with the algorithm choosing the

albuming parameters by default or specified by the user. Therefore, Loui further discloses the claim limitation of "obtaining related data, which is related to the photography location of the at least one image data set for which the distance is over the predetermined threshold value, based on the location data attached thereto, from a related data storage means which stores a plurality of related data sets" wherein the related data set is the metadata including the location of photographing stored in the database. Loui further discloses the claim limitation of "generating album data, which includes the related data" because Loui discloses displaying album organized by event wherein the event are associated with the pictures in the album.

In response to applicant's argument that "the images are not sent from a computer terminal to a server for processing." However, the claim 1 set forth the claim limitation of "a user terminal" rather than a computer terminal. In response to applicant's argument that "although a user ID is used in Wilcock to organize the images, it is not used to identify a predetermined reference position for that particular user." However, the claim 1 recites the claim limitation of "a predetermined reference position is associated with said user ID". Applicant's arguments are not found in the claim 1 as currently amended.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 6, 11, 16 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kahn et al. US 2004/0004663 A1 (hereinafter Kahn) in view of Asami U.S. Patent No. 6,882,350 (hereinafter Asami).

Re Claims 1, 6, 11, 16 and 25:

Kahn teaches a method for generating an album based on album data including at least one image data set, which has been photographed during a trip and which has location data representing a photography location attached thereto, comprising the steps of:

Loading the image data into a personal computer (*See Paragraph 0044-0045 wherein the image data is taken by the digital camera 100 and is loaded to the local host device such as cell phone, personal digital assistant, computer or the like and the personal digital assistant or the computer meets the claim limitation of "a personal computer"*);

Forwarding image data from a user terminal of said personal computer to a generation support server (*e.g., Kahn teaches forwarding/uploading user's photos from the local host device to the image management server of Fig. 4; see Paragraph 0089 and 0097-0098)*, a user at the user terminal being identified by a user ID (*user's GPS location, location ID in paragraph 0094 and 0097 and user's identity ID of paragraph 0098*), where a predetermined reference position corresponds to said user ID (*e.g., Paragraph 0051 wherein the location information of where the user is currently located, the most recently captured images for organizing a plurality of photos. The location information may also be a centroid of a given geographic location of interest of Kahn meets the claim limitation of "a predetermined reference position" wherein the centroid is associated with the user's location ID and/or the user's ID; see paragraph 0093*); and,

The generation support server performing the steps of:

Calculating said distance between the photography location of the image data set and a predetermined reference position, based on the location data (*e.g., Kahn teaches calculating the distance by determining whether the user's GPS location lies within a given geographic location of interest to determine the distance between the user's GPS location and the centroid for a given geographic location as performed within an SQL stored procedure; see Paragraph 0093*);

Judging whether the distance is over a predetermined threshold value (*e.g., the radius of a given geographic location as taught in Kahn meets the claim limitation of "a predetermined threshold value"*; *see Paragraph 0093-0094*; a list of fulfillers within a given distance as retrieved from the database in the image manager are returned to the local applet and displayed to the user as sorted by least distance to the user; see Paragraph 0098-0100);

Classifying the image data set according to the result of judgment (*"albums" based on location of Paragraph 0098-0100*); and

Generating the album data according to the result of classification (*"albums" based on location of Paragraph 0098-0100*).

Kahn is silent to the claim limitation of displaying together, on a display screen, both map data indicating a travel route and thumbnail images in a chronological order.

However, Asami discloses in Figs. 10-12 and 15-19 displaying together on a display screen both map data indicating a travel route and thumbnail images in a chronological order (See also Asami column 20, lines 34-62, e.g., the map data indicating the sightseeing course of the tour or the map data indicating the route connecting the thumbnail icons of photos).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to have incorporated Asami into Kahn's method and apparatus for generating an

album because Kahn's photos are location dependent in a trip and are ordered in chronological order in a trip and Kahn's photos thus can be displayed according to the teaching of Asami (Figs. 15-19 and 10-12 of Asami) as Asami's photos are also locations dependent and are ordered chronologically for a trip.

One of the ordinary skill in the art would have been motivated to incorporate Asami to display the photo icons along the travel route (See also Asami column 20, lines 34-62, e.g., the map data indicating the sightseeing course of the tour or the map data indicating the route connecting the thumbnail icons of photos; See also Asami Figs. 10-12 and 15-19).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-5, 6, 8, 10, 11, 13, 15, 16, 18, 20 and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loui et al. U.S. Patent No. 6,636,648 (hereinafter Loui), in view of Wilcock et al. U.S. Patent No. 6,741,864 (hereinafter Wilcock) and Asami U.S. Patent No. 6,882,350 (hereinafter Asami).

Re claims 1, 6, 11, 16 and 25, Loui discloses a method for generating an album based on album data including at least one image data set, which has been photographed using a digital

camera during a trip and which has location data representing a photography location attached thereto, comprising the steps of:

Calculating a distance between the photography location of the image data set and a predetermined reference position, based on the location data (*e.g., Loui teaches in column 9-11 adding annotations for pictures and associating metadata to the pictures. Loui teaches an albuming algorithm that arranges the picture according to an event or a sub-event wherein the event or sub-event are defined by the metadata including metadata tags and GPS information to determine location and subject depth information. The information defines the context surrounding a picture capturing event allowing the user to select the set of pictures in the database using an arbitrary query based on the stored metadata and the selected set of pictures is filtered by omitting those pictures whose image quality metric is below some threshold and the event segmentation stage determines event and sub-event boundaries to determine final set of pictures for each event and sub-event. Loui classified the pictures using the metadata having the location information and the pictures are classified in accordance to the predetermined way of dealing with the actual boundary condition of events and sub-events. This classification algorithm according to the event and sub-event boundary involves a predetermined threshold value for judging the distance between the photo location contained in the metadata and a reference position associated with an event or sub-event such as the event and sub-event boundaries*);

Judging whether the distance is over a predetermined threshold value (*e.g., Loui teaches in column 8-11 adding annotations for pictures and associating metadata to the pictures. Loui teaches an albuming algorithm that arranges the picture according to an event or a sub-event*

wherein the event or sub-event are defined by the metadata including metadata tags and GPS information to determine location and subject depth information. The information defines the context surrounding a picture capturing event allowing the user to select the set of pictures in the database using an arbitrary query based on the stored metadata and the selected set of pictures is filtered by omitting those pictures whose image quality metric is below some threshold and the event segmentation stage determines event and sub-event boundaries to determine final set of pictures for each event and sub-event. Loui classified the pictures using the metadata having the location information and the pictures are classified in accordance to the predetermined way of dealing with the actual boundary condition of events and sub-events. This classification algorithm according to the event and sub-event boundary involves a predetermined threshold value for judging the distance between the photo location contained in the metadata and a reference position associated with an event or sub-event such as the event and sub-event boundaries);

Classifying the image data set according to the result of judgment (*e.g., Loui teaches in column 8-11 adding annotations for pictures and associating metadata to the pictures. Loui teaches an albuming algorithm that arranges the picture according to an event or a sub-event wherein the event or sub-event are defined by the metadata including metadata tags and GPS information to determine location and subject depth information. The information defines the context surrounding a picture capturing event allowing the user to select the set of pictures in the database using an arbitrary query based on the stored metadata and the selected set of pictures is filtered by omitting those pictures whose image quality metric is below some threshold and the event segmentation stage determines event and sub-event boundaries to determine final set of*

pictures for each event and sub-event. Loui classified the pictures using the metadata having the location information and the pictures are classified in accordance to the predetermined way of dealing with the actual boundary condition of events and sub-events. This classification algorithm according to the event and sub-event boundary involves a predetermined threshold value for judging the distance between the photo location contained in the metadata and a reference position associated with an event or sub-event such as the event and sub-event boundaries, e.g., the distance is either zero or larger than a threshold value so that the photo is judged to be either within or outside the event and sub-event boundaries);

Generating the album data according to the result of classification (*e.g., Loui teaches in column 7-11 the page layout module presents to the user an automatically laid out album organized by event with the algorithm choosing the albuming parameters by default or specified by the user*).

However, it remains to be determined whether Loui's query using the query metric meets the claim limitation of calculating a distance between the photography location of the image data set and a predetermined reference position, based on the location data. It can be seen from Loui that the query for the images to be shown in a photo album requires a predetermined event such as the predetermined photography location for the query and the images found after query meets the criteria set forth in the query metric in which the distance between the queried image and the predetermined photography location is within the event boundary.

This is manifested as follows. Loui teaches in column 9-11 adding annotations for pictures and associating metadata to the pictures. Loui teaches an albuming algorithm that arranges the picture according to an event or a sub-event wherein the event or sub-event are

defined by the metadata including metadata tags and GPS information to determine location and subject depth information. The information defines the context surrounding a picture capturing event allowing the user to select the set of pictures in the database using an arbitrary query based on the stored metadata and the selected set of pictures is filtered by omitting those pictures whose image quality metric is below some threshold and the event segmentation stage determines event and sub-event boundaries to determine final set of pictures for each event and sub-event. Loui classified the pictures using the metadata having the location information and the pictures are classified in accordance to the predetermined way of dealing with the actual boundary condition of events and sub-events. This classification algorithm according to the event and sub-event boundary involves a predetermined threshold value for judging the distance between the photo location contained in the metadata and a reference position associated with an event or sub-event such as the event and sub-event boundaries.

It remains to show whether that Loui implicitly teaches judging whether the distance is over a predetermined threshold value. Loui that the query for the images to be shown in a photo album requires a predetermined event such as the predetermined photography location for the query and the images found after query meets the criteria set forth in the query metric in which the distance between the queried image and the predetermined photography location is within the event boundary. The event boundary for an event occurs within a region of interest, for example, a park or a city requires the calculation of the distance between the locations for the images being queried and the query location of interest and the distance should be less than a threshold such as the zero threshold for exact query or within a predetermined threshold for approximate query in a query language.

Nevertheless, Wilcock explicitly discloses using threshold for classifying the pictures within a location of interest and therefore Wilcok discloses the claim limitation of judging whether the distance is over a predetermined threshold value (See Wilcok column 7, lines 28-51).

Moreover, Wilcock discloses the claim limitation of calculating a distance between the photography location of the image data set and a predetermined reference position, based on the location data (column 10, lines 35-65).

Therefore, taking the combined teachings of Loui and Wilcock, one of the ordinary skill in the art would have incorporated Wilcock's thresholding into Loui's method because these references deal with the image queries based on the location of interest using a criteria set forth in the query wherein Wilcock specifically uses a threshold number to classify the groups of pictures. One of the ordinary skill in the art would have been motivated to use the thresholding to specifically classify the pictures when they fall into a number of categories of events (See Wilcok column 7, lines 28-51).

It remains to show whether that Loui and Wilcok implicitly teach the claim limitation of "loading the image data into a personal computer" and "forwarding image data from a user terminal of said personal computer to a generation support server, a user at the user terminal being identified by a user ID, where a predetermined reference position corresponds to said user ID."

However, Wilcok further discloses the claim limitation of "loading the image data into a personal computer" and "forwarding image data from a user terminal of said personal computer

to a generation support server, a user at the user terminal being identified by a user ID, where a predetermined reference position corresponds to said user ID".

Wilcok discloses loading the image data into a personal computer (column 10, lines 35-65) and forwarding image data from camera/personal digital assistant (See column 10, lines 35-65) to PC 5 and/or database 7-9 on the PC or external, a user at the user terminal (*comprising of the mobile device in combination of the camera and the location server for providing the location data for the photos taken; see column 10, lines 55-65*) being identified by camera ID and a user ID including the location data; see column 3, lines 45-65 and column 10, lines 10-30; where a predetermined reference position (*the location data of the last taken photo; see column 9, lines 55-67 and column 10, lines 1-7 and column 10, lines 40-65 wherein the cited reference teaches the location data of an individual photo is associated with the last taken photo for correlations with the photos being taken with the predetermined reference position can be position-in-sequence of photographs*) such as the reference location data is provided for correlation with the taken photos.

The reference location/position is provided by the location-based services corresponding to the user's location data. The photo location data is related to the camera and/or the personal digital assistant's location when a user takes a photo and the user operates a button of the camera and/or personal digital assistant to cause the camera or the personal digital assistant to trigger a determination of its location; see column 11, lines 10-67 and the location data can be provided by a digital camera equipped with GPS wherein a predetermined location reference such as the GPS location is associated with the camera or the personal digital assistant identified by the user ID.

One of the ordinary skill in the art would have been motivated to use the forwarding means so that the photos can be stored for retrieval on the basis of their GPS locations and album collections are made by matching the location data associated with photo image data in the album program (See Wilcok column 13, lines 20-67 and column 14, lines 1-57).

Loui and Wilcok are silent to the claim limitation of displaying together, on a display screen, both map data indicating a travel route and thumbnail images in a chronological order.

However, Asami discloses in Figs. 10-12 and 15-19 displaying together on a display screen both map data indicating a travel route and thumbnail images in a chronological order (See also Asami column 20, lines 34-62, e.g., the map data indicating the sightseeing course of the tour or the map data indicating the route connecting the thumbnail icons of photos).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to have incorporated Asami into Loui and Wilcok's method and apparatus for generating an album because Loui and Wilcok's photos are location dependent in a trip and are ordered in chronological order in a trip and Loui and Wilcok's photos thus can be displayed according to the teaching of Asami (Figs. 15-19 and 10-12 of Asami) as Asami's photos are also locations dependent and are ordered chronologically for a trip. Wilcok teaches in Figs. 6-7 that the thumbnails are displayed on the map having a plurality of routes that a user can travel along.

One of the ordinary skill in the art would have been motivated to incorporate Asami to display the photo icons along the travel route (See also Asami column 20, lines 34-62, e.g., the map data indicating the sightseeing course of the tour or the map data indicating the route connecting the thumbnail icons of photos; See also Asami Figs. 10-12 and 15-19, Wilcok Figs.

6-7 wherein the thumbnails are displayed on the map having a plurality of routes that a user can travel along).

Re claims 3-5, 8, 10, 13, 15, 18 and 20, Loui teaches in column 8-11 adding annotations for pictures and associating metadata to the pictures. Loui teaches an albuming algorithm that arranges the picture according to an event or a sub-event wherein the event or sub-event are defined by the metadata including metadata tags and GPS information to determine location and subject depth information. The information defines the context surrounding a picture capturing event allowing the user to select the set of pictures in the database using an arbitrary query based on the stored metadata and the selected set of pictures is filtered by omitting those pictures whose image quality metric is below some threshold and the event segmentation stage determines event and sub-event boundaries to determine final set of pictures for each event and sub-event. Loui classified the pictures using the metadata having the location information and the pictures are classified in accordance to the predetermined way of dealing with the actual boundary condition of events and sub-events. This classification algorithm according to the event and sub-event boundary involves a predetermined threshold value for judging the distance between the photo location contained in the metadata and a reference position associated with an event or sub-event such as the event and sub-event boundaries, e.g., the distance is either zero or larger than a threshold value so that the photo is judged to be either within or outside the event and sub-event boundaries. Loui further teaches in column 7-11 the page layout module presents to the user an automatically laid out album organized by event with the algorithm choosing the albuming parameters by default or specified by the user. Therefore, Loui further discloses the

claim limitation of "obtaining related data, which is related to the photography location of the at least one image data set for which the distance is over the predetermined threshold value, based on the location data attached thereto, from a related data storage means which stores a plurality of related data sets" wherein the related data set is the metadata including the location of photographing stored in the database. Loui further discloses the claim limitation of "generating album data, which includes the related data" because Loui discloses displaying album organized by event wherein the event are associated with the pictures in the album.

Re Claims 21-24: Loui and Wilcock disclose the query language for the images to be classified in a album including the location of interest supplied in a query and therefore, the cited reference disclose the predetermined reference position registered as user data in a query.

Claims 2, 7, 9, 12, 14, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loui et al. U.S. Patent No. 6,636,648 (hereinafter Loui), in view of Wilcock et al. U.S. Patent No. 6,741,864 (hereinafter Wilcock) and Asami U.S. Patent No. 6,882,350 (hereinafter Asami), in view of Kino et al. U.S. Patent No. 6,832,101 (hereinafter Kino).

Re claims 2, 7, 12, and 17, Loui teaches in column 8-11 adding annotations for pictures and associating metadata to the pictures. Loui teaches an albuming algorithm that arranges the picture according to an event or a sub-event wherein the event or sub-event are defined by the metadata including metadata tags and GPS information to determine location and subject depth information. The information defines the context surrounding a picture capturing event allowing the user to select the set of pictures in the database using an arbitrary query based on the stored

metadata and the selected set of pictures is filtered by omitting those pictures whose image quality metric is below some threshold and the event segmentation stage determines event and sub-event boundaries to determine final set of pictures for each event and sub-event. Loui classified the pictures using the metadata having the location information and the pictures are classified in accordance to the predetermined way of dealing with the actual boundary condition of events and sub-events. This classification algorithm according to the event and sub-event boundary involves a predetermined threshold value for judging the distance between the photo location contained in the metadata and a reference position associated with an event or sub-event such as the event and sub-event boundaries, e.g., **the distance is either zero or larger than a non-zero threshold value** so that the photo is judged to be either within or outside the event and sub-event boundaries. Loui further teaches in column 7-11 the page layout module presents to the user an automatically *laid out album organized by event* chronologically or non-chronologically with the algorithm choosing the albuming parameters by default or specified by the user. The laid out album organized by events arranged in a chronological order requires the location information for the events and sub-events along the route. Therefore, Loui further discloses the claim limitation of "generating travel route data, which represents a route taken during the trip, based on the location data attached to the at least one image data set for which the distance is over the predetermined threshold value" because classifying the events and sub-events based on the location are travel route data which represents a route taken during a trip for locations of the pictures arranged in a chronological order. Loui further discloses generating photography data such as the picture data and the metadata which represents that the image data set was obtained at the photography locations along the route.

Loui does not disclose "obtaining a map data set that contains the route from a map database which stores a plurality of map data sets, based on the travel route data" and similarly "attaching the photography data to the map data set and generating album data including the map data set, in which the photography data is correlated with the image data set."

However, Kino discloses a method of photographing a photo image at a construction side to be related with a map and registering it in the database wherein the information about the photograph position on the map is stored in the database to be related with attached information about the construction site. Kino further discloses associating a symbol to the place where the image was photographed on the map allowing for searching the image and the attached information to be related each other by referring to the symbol list using the symbol ID. Kino thus discloses the locations of the travel route data chronologically because the locations of the pictures taken are ordered chronologically along a travel route. In this way, the locations are searched/extracted from the database based on the attached information and the locations thus extracted in a chronological order form a travel route (See Kino column 3, lines 50 through column 4, lines 16).

Although Loui did not specifically teach the claim limitation, it is well known to one of the ordinary skill in the art to have incorporated Kino's map database to have associated symbols or metadata's locations to the photographs and to have determined a travel route based on the Loui's location data associated with the pictures.

One having the ordinary skill in the art would have been motivated to do this because it would have provided a travel route on the map database and means for relating the position on

the map with the symbols attached to or associated with the pictures (See Kino column 3, lines 50 through column 4, lines 16).

Re claims 9, 14 and 19, Loui teaches in column 8-11 adding annotations for pictures and associating metadata to the pictures. Loui teaches an albuming algorithm that arranges the picture according to an event or a sub-event wherein the event or sub-event are defined by the metadata including metadata tags and GPS information to determine location and subject depth information. The information defines the context surrounding a picture capturing event allowing the user to select the set of pictures in the database using an arbitrary query based on the stored metadata and the selected set of pictures is filtered by omitting those pictures whose image quality metric is below some threshold and the event segmentation stage determines event and sub-event boundaries to determine final set of pictures for each event and sub-event. Loui classified the pictures using the metadata having the location information and the pictures are classified in accordance to the predetermined way of dealing with the actual boundary condition of events and sub-events. This classification algorithm according to the event and sub-event boundary involves a predetermined threshold value for judging the distance between the photo location contained in the metadata and a reference position associated with an event or sub-event such as the event and sub-event boundaries, e.g., the distance is either zero or larger than a threshold value so that the photo is judged to be either within or outside the event and sub-event boundaries. Loui further teaches in column 7-11 the page layout module presents to the user an automatically laid out album organized by event with the algorithm choosing the albuming parameters by default or specified by the user. Therefore, Loui further discloses the claim limitation of "obtaining related data, which is related to the photography location of the at least

one image data set for which the distance is over the predetermined threshold value, based on the location data attached thereto, from a related data storage means which stores a plurality of related data sets" wherein the related data set is the metadata including the location of photographing stored in the database. Loui further discloses the claim limitation of "generating album data, which includes the related data" because Loui discloses displaying album organized by event wherein the event are associated with the pictures in the album.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (571) 272-7665. The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jcw Jinlheng Wang